In the Claims:

Kindly cancel claim 1 and insert new claims 82-104 as follows:

--82. A method of treating amyotrophic lateral sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

83. A method of treating multiple sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

84. A method of treating a spinal cord injury, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

85. The method of claim 84, wherein said spinal cord injury results from a mechanical trauma.

86. The method of claim 84, wherein said spinal cord injury results from a tumor.

87. The method of claim 84, wherein said spinal cord injury results from a chemical trauma.

88. A method of restoring motor function in a mammal afflicted with amyotrophic lateral sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

89. A method of restoring motor function in a mammal afflicted with multiple sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

90. A method of restoring motor function in a mammal afflicted with a spinal cord injury, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

Sub C2

91. A method of preserving motor function in a mammal afflicted with or at risk of amyotrophic lateral sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

92. A method of preserving motor function in a mammal afflicted with or at risk of multiple sclerosis, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

93. A method of preserving motor function in a mammal afflicted with or at risk of a spinal cord injury, comprising administering a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

(a) having at least 70% homology with the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2;

(b) having greater than 60% amino acid sequence identity with said C-terminal seven-cysteine skeleton of human OP-1;

(c) defined by Generic Sequence 7, SEQ ID NO: 4;

(d) defined by Generic Sequence 8, SEQ ID NO: 5;

(e) defined by Generic Sequence 9, SEQ ID NO: 6;

(f) defined by Generic Sequence 10, SEQ ID NO: 7, and

(g) defined by OPX, SEQ ID NO: 3,

wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

94. A method of treating amyotrophic lateral sclerosis, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1,

human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

95. A method of treating multiple sclerosis, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

96. A method of treating a spinal cord injury, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

97. A method of restoring motor function in a mammal afflicted with amyotrophic lateral sclerosis, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

98. A method of restoring motor function in a mammal afflicted with multiple sclerosis, comprising the step of administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

99. A method of restoring motor function in a mammal afflicted with a spinal cord injury, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A,

Sub D4 cont

BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

100. A method of preserving motor function in a mammal afflicted with or at risk of amyotrophic lateral sclerosis, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

101. A method of preserving motor function in a mammal afflicted with or at risk of multiple sclerosis, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

B1

102. A method of preserving motor function in a mammal afflicted with or at risk of a spinal cord injury, comprising administering a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*.

103. The method of claim 82, 83, 84, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101 and 102, wherein said morphogen is complexed with at least one pro-domain polypeptide selected from the group consisting of the pro-domains of OP-1, OP-2, 60A, GDF-1, BMP-2A, BMP-2B, DPP, Vgl, Vgr-1, BMP-3, BMP-5, and BMP-6.

104. The method of claim 103, wherein said morphogen is complexed with a pair of said pro-domain polypeptides.--